

## SUBSTITUTE

### ABSTRACT

A method for automatically generating front-end code and back-end code that are both compatible with a specification, such as the JDWP communication protocol. First, a detailed  
5 protocol specification is written that contains a description of a communication protocol between the front-end code and the back-end code. The detailed specification is then input into a code generator that parses the specification. The front-end code is then automatically generated from the formal specification, and may be written in a first computer language such as the Java<sup>TM</sup> programming language. The code generator then generates the back-end code,  
10 which may be written in a second computer language such as C.